

September 18, 2002  
Project No. 203571006

Inspector Tom Hall  
Santa Fe Springs Fire Department  
11300 Greenstone Avenue  
Santa Fe Springs, California 90670

Subject: Work Plan to Characterize Potential PCB Containing Soil  
in the Vicinity of Soil Boring UB1  
Proposed Bloomfield Business Center Property  
11020, 11102, 11120, and 11240 Bloomfield Avenue  
Santa Fe Springs, California

Dear Inspector Hall:

This work plan presents the scope of work and estimated schedule to characterize the extent of potential polychlorinated biphenyl (PCB) containing soil adjacent to previously drilled soil boring UB1 at the above-referenced property (site). As outlined in our previous approved work plan dated August 1, 2002, Ninyo & Moore advanced one soil boring (designated UB1) on August 16, 2002 between Septic Sump Nos. 1 and 2 (Figure 1). Soil samples were collected at 5-foot depth intervals beginning at approximately 5 feet below the ground surface (bgs) and continuing to the bottom of the boring (i.e., approximately 40 feet bgs). Soil samples were screened in the field for volatile organic compounds (VOCs) using a photoionization detector (PID). There was no field indication (i.e., staining, odors or PID readings) that would indicate contaminated soil. The soil samples collected at depths of approximately 10, 20, 30, and 40 feet bgs were analyzed for VOCs, total petroleum hydrocarbons, extended range hydrocarbons C<sub>5</sub>-C<sub>32</sub> (TPHe), and PCBs.

As presented on Table 1, no detectable concentrations of lighter-end petroleum hydrocarbons C<sub>5</sub>-C<sub>12</sub> were detected in the samples analyzed. Heavy-end petroleum hydrocarbons C<sub>13</sub>-C<sub>32+</sub> were detected at low concentrations in the sample collected at 10 feet bgs (i.e., 515 milligrams per kilogram [mg/kg]). This sample also contained PCBs at 11 mg/kg. Laboratory results of the remaining samples collected at 20, 30 and 40 feet bgs indicated no detectable concentrations of petroleum hydrocarbons or PCBs. Low concentrations of tetrachloroethylene (PCE) at 0.075

mg/kg and trichloroethene (TCE) at 0.0064 mg/kg were reported in the sample collected at a depth of approximately 20 feet bgs. VOCs were not detected in the samples collected at 10, 30 or 40 feet bgs. A copy of the laboratory report is attached.

The industrial Preliminary Remediation Goal (PRG) for PCE is 5.7 mg/kg and TCE is 2.8 mg/kg. Based on this information, the concentrations of PCE and TCE detected in the single soil sample collected from boring UB1 would be considered low. The heavy petroleum hydrocarbons detected in the single soil sample would, in our judgment, also be considered low. Based on this information, the heavy petroleum hydrocarbons and limited VOCs detected in soil samples collected from boring UB1 would be below regulatory limits and would not warrant additional investigations or remediation.

Ninyo & Moore reviewed previous work completed at the site by others during the characterization of the PCB containing soil associated with the capped area located southwest of soil boring UB1. Based on our review, impacted soil in this area was characterized based on concentrations of PCBs that exceeded 10 mg/kg. Low concentrations of PCBs, ranging from 0.6 to 3.4 mg/kg, were detected in soil samples in scattered anomalies surrounding the capped area.

It appears that the single concentration of PCBs detected during this investigation may be limited in area and may also be considered a scattered anomaly. It is our judgment that the concentration of PCBs detected in boring UB1 is not associated with the septic sumps. If these constituents were associated with the septic sumps, it is our judgment that concentrations of PCBs would have been detected in the deeper soil samples collected adjacent to these features.

## **OBJECTIVE**

The objective of the subsurface investigation is to assess the extent of potential PCB containing soil in the vicinity of soil boring UB1.

## SCOPE OF SERVICES

The following scope of work is presented to meet the objective:

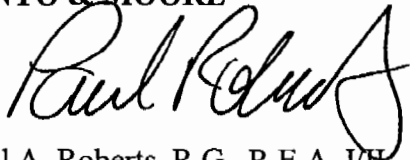
- **Limited Subsurface Investigation** – Five soil borings will be drilled using hydraulic push equipment to depths of approximately 15 feet below the ground surface (bgs) in the locations shown on Figure 1. Four of the borings will be drilled approximately 10 feet from previous soil boring UB1 to obtain the lateral extent of the potential PCB containing soil and one boring will be drilled adjacent to previous soil boring UB1. Soil samples will be collected from the “lateral” borings at depths of approximately 2, 6, 10, and 15 feet bgs and at depths of approximately 2, 7, and 15 feet bgs from the boring drilled adjacent to boring UB1. Field procedures will be similar to those outlined in the work plan submitted to the SFSFD dated August 1, 2002.
- **Laboratory Analyses** – Samples will be analyzed by Advanced Technology Laboratories of Signal Hill, California, a State-certified environmental laboratory. The soil samples collected at depths of approximately 2, 6, and 10 feet bgs from the “lateral” borings, and at depths of approximately 2, 7, and 15 feet bgs from the boring drilled adjacent to boring UB1 will be analyzed for PCBs in general accordance with EPA Method No. 8082.
- **Data Report** – The results of this investigation will be shared with the SFSFD along with recommendations for any further action, if necessary. The results will be documented in the final report that will be prepared following grading activities.

## SCHEDULE

Ninyo & Moore has verbally discussed this scope of work with Inspector Tom Hall of the SFSFD and has scheduled the fieldwork to be completed on Friday, September 20, 2002. Following receipt of the laboratory results, Ninyo & Moore will discuss the results and planned activities with the SFSFD.

If you have any questions or comments regarding this work plan, please call the undersigned at your convenience.

Sincerely,  
**NINYO & MOORE**



Paul A. Roberts, R.G., R.E.A. I/H  
Senior Environmental Geologist



PAR/ldw

Attachment: Table 1 – Summary of Laboratory Results of Initial Soil Boring UB1  
Figure 1 – Proposed Soil Boring Location Map  
Laboratory Report

Distribution: (1) Addressee  
(1) Mr. Peter Rooney, Bloomfield Partners, LLC  
(1) Mr. Clark Neuhoﬀ, Bloomfield Partners, LLC  
(1) Mr. Dave Henry, Hazard Management Consulting, Inc.

**Table 1 – Summary of Laboratory Results of Initial Soil Boring UB1**

Sample Depth	TPH C <sub>5</sub> -C <sub>12</sub> (mg/kg)	TPH C <sub>13</sub> -C <sub>32</sub> (mg/kg)	PCBs (mg/kg)	VOCs (mg/kg)
10	ND	515	11	ND
20	ND	ND	ND	0.075-PCE 0.0064-TCE
30	ND	ND	ND	ND
40	ND	ND	ND	ND

**Notes:**

Sample Depth – feet below the ground surface.

TPH – total petroleum hydrocarbons analyzed in general accordance with EPA Method No. 8015 (modified).

PCBs – polychlorinated biphenyls analyzed in general accordance with EPA Method No. 8082.

VOCs – volatile organic compounds analyzed in general accordance with EPA Method No. 8260B.

mg/kg – milligram per kilogram.

ND – no detectable concentration above the laboratory detection limit.

PCE – tetrachloroethylene.

TCE – trichloroethene.

← LAKELAND ROAD →

ELECTRICAL  
POWER  
POLE

SIDEWALK

□ RAILROAD  
CROSSING  
SIGN

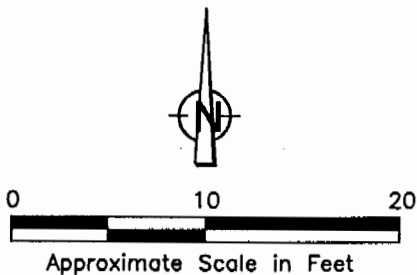
SEPTIC  
SUMP NO. 2

UB1 ⊕

SEPTIC  
SUMP NO. 1

#### LEGEND

- PROPOSED SOIL BORING LOCATION
- UB1 ⊕ PREVIOUS SOIL BORING LOCATION AND DESIGNATION
- x—x— FENCE



NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

#### PROPOSED SOIL BORING LOCATION MAP

PROPOSED BLOOMFIELD BUSINESS CENTER  
11020, 11102, 11120, AND 11240 BLOOMFIELD AVE.  
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.

203571006

DATE

9/2002

FIGURE

1

**Ninyo & Moore**

August 26, 2002

Paul Roberts  
Ninyo & Moore  
475 Goddard Suite 200  
Irvine, CA 92618  
TEL: (949) 753-7070  
FAX: (949) 753-7071

RE: Walker Sump Abandonment, 203571006

Attention: Paul Roberts

ELAP No.: 1838

NELAP No.: 02107CA

Workorder No.: 058433

Enclosed are the results for sample(s) received on August 16, 2002 by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,



Eddie F. Rodriguez  
Laboratory Director

This cover letter and a case narrative are an integral part of this analytical report.



**CLIENT:** Ninyo & Moore  
**Project:** Walker Sump Abandonment, 203571006  
**Lab Order:** 058433

**CASE NARRATIVE**

Prep Comments for 5035

Samples 058433-001A through 004A: Encore samples field preserved.





# Advanced Technology Laboratories

Date: 26-Aug-02

**CLIENT:** Ninyo & Moore  
**Project:** Walker Sump Abandonment, 203571006

**Lab Order:** 058433

**Lab ID:** 058433-001

**Collection Date:** 8/16/2002 8:30:00 AM

**Client Sample ID:** UB-1-10'

**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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## HYDROCARBON CHAIN IDENTIFICATION (LUFT)

EPA 8015B

RunID:	GC7_020820A	QC Batch:	10456	Analyst:	IG
T/R Hydrocarbons: >C32	160	10	mg/Kg	1	8/20/2002
T/R Hydrocarbons: C10-C12	ND	10	mg/Kg	1	8/20/2002
T/R Hydrocarbons: C13-C15	ND	10	mg/Kg	1	8/20/2002
T/R Hydrocarbons: C16-C22	75	10	mg/Kg	1	8/20/2002
T/R Hydrocarbons: C23-C32	280	10	mg/Kg	1	8/20/2002

## HYDROCARBON CHAIN IDENTIFICATION

EPA 8015B

RunID:	GC2_020819A	QC Batch:	E02VS216	Analyst:	JK
T/R Hydrocarbons: C5-C12	ND	1.0	mg/Kg	1	8/19/2002

## PCB BY GC/ECD

(EPA 3550B)

EPA 8082

RunID:	GC10_020821A	QC Batch:	10443	Analyst:	GG
Aroclor 1016	ND	1600	µg/Kg	50	8/23/2002
Aroclor 1221	ND	3400	µg/Kg	50	8/23/2002
Aroclor 1232	ND	1600	µg/Kg	50	8/23/2002
Aroclor 1242	ND	1600	µg/Kg	50	8/23/2002
Aroclor 1248	11000	1600	µg/Kg	50	8/23/2002
Aroclor 1254	ND	1600	µg/Kg	50	8/23/2002
Aroclor 1260	ND	1600	µg/Kg	50	8/23/2002
Aroclor 1262	ND	1600	µg/Kg	50	8/23/2002
Aroclor 1268	ND	1600	µg/Kg	50	8/23/2002

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID:	MS1_020820A	QC Batch:	P02VS171	Analyst:	JPC
1,1,1,2-Tetrachloroethane	ND	4.3	µg/Kg	1	8/20/2002
1,1,1-Trichloroethane	ND	4.3	µg/Kg	1	8/20/2002
1,1,2,2-Tetrachloroethane	ND	4.3	µg/Kg	1	8/20/2002
1,1,2-Trichloroethane	ND	4.3	µg/Kg	1	8/20/2002
1,1-Dichloroethane	ND	4.3	µg/Kg	1	8/20/2002
1,1-Dichloroethene	ND	4.3	µg/Kg	1	8/20/2002
1,1-Dichloropropene	ND	4.3	µg/Kg	1	8/20/2002
1,2,3-Trichlorobenzene	ND	4.3	µg/Kg	1	8/20/2002

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

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Advanced Technology  
Laboratories

3275 Walnut Avenue, Suite 114, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

# Advanced Technology Laboratories

Date: 26-Aug-02

CLIENT: Ninyo & Moore  
Project: Walker Sump Abandonment, 203571006

Lab Order: 058433

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS1_020820A	QC Batch: P02VS171	Analyst: JPC
1,2,3-Trichloropropane	ND 4.3	µg/Kg 1 8/20/2002
1,2,4-Trichlorobenzene	ND 4.3	µg/Kg 1 8/20/2002
1,2,4-Trimethylbenzene	ND 4.3	µg/Kg 1 8/20/2002
1,2-Dibromo-3-chloropropane	ND 8.7	µg/Kg 1 8/20/2002
1,2-Dibromoethane	ND 4.3	µg/Kg 1 8/20/2002
1,2-Dichlorobenzene	ND 4.3	µg/Kg 1 8/20/2002
1,2-Dichloroethane	ND 4.3	µg/Kg 1 8/20/2002
1,2-Dichloropropane	ND 4.3	µg/Kg 1 8/20/2002
1,3,5-Trimethylbenzene	ND 4.3	µg/Kg 1 8/20/2002
1,3-Dichlorobenzene	ND 4.3	µg/Kg 1 8/20/2002
1,3-Dichloropropane	ND 4.3	µg/Kg 1 8/20/2002
1,4-Dichlorobenzene	ND 4.3	µg/Kg 1 8/20/2002
2,2-Dichloropropane	ND 4.3	µg/Kg 1 8/20/2002
2-Chlorotoluene	ND 4.3	µg/Kg 1 8/20/2002
4-Chlorotoluene	ND 4.3	µg/Kg 1 8/20/2002
4-Isopropyltoluene	ND 4.3	µg/Kg 1 8/20/2002
Benzene	ND 4.3	µg/Kg 1 8/20/2002
Bromobenzene	ND 4.3	µg/Kg 1 8/20/2002
Bromodichloromethane	ND 4.3	µg/Kg 1 8/20/2002
Bromoform	ND 4.3	µg/Kg 1 8/20/2002
Bromomethane	ND 4.3	µg/Kg 1 8/20/2002
Carbon tetrachloride	ND 4.3	µg/Kg 1 8/20/2002
Chlorobenzene	ND 4.3	µg/Kg 1 8/20/2002
Chloroethane	ND 4.3	µg/Kg 1 8/20/2002
Chloroform	ND 4.3	µg/Kg 1 8/20/2002
Chloromethane	ND 4.3	µg/Kg 1 8/20/2002
cis-1,2-Dichloroethene	ND 4.3	µg/Kg 1 8/20/2002
Dibromochloromethane	ND 4.3	µg/Kg 1 8/20/2002
Dibromomethane	ND 4.3	µg/Kg 1 8/20/2002
Dichlorodifluoromethane	ND 4.3	µg/Kg 1 8/20/2002
Ethylbenzene	ND 4.3	µg/Kg 1 8/20/2002
Hexachlorobutadiene	ND 4.3	µg/Kg 1 8/20/2002
Isopropylbenzene	ND 4.3	µg/Kg 1 8/20/2002
m,p-Xylene	ND 4.3	µg/Kg 1 8/20/2002
Methylene chloride	ND 4.3	µg/Kg 1 8/20/2002
MTBE	ND 4.3	µg/Kg 1 8/20/2002
n-Butylbenzene	ND 4.3	µg/Kg 1 8/20/2002
n-Propylbenzene	ND 4.3	µg/Kg 1 8/20/2002
Naphthalene	ND 4.3	µg/Kg 1 8/20/2002
o-Xylene	ND 4.3	µg/Kg 1 8/20/2002
sec-Butylbenzene	ND 4.3	µg/Kg 1 8/20/2002
Styrene	ND 4.3	µg/Kg 1 8/20/2002

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
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\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

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Advanced Technology  
Laboratories

3275 Walnut Avenue, Suite 404, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

# Advanced Technology Laboratories

Date: 26-Aug-02

**CLIENT:** Ninyo & Moore  
**Project:** Walker Sump Abandonment, 203571006

**Lab Order:** 058433

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID: MS1_020820A	QC Batch: P02VS171	Analyst: JPC
tert-Butylbenzene	ND 4.3 µg/Kg	1 8/20/2002
Tetrachloroethene	ND 4.3 µg/Kg	1 8/20/2002
Toluene	ND 4.3 µg/Kg	1 8/20/2002
trans-1,2-Dichloroethene	ND 4.3 µg/Kg	1 8/20/2002
Trichloroethene	ND 4.3 µg/Kg	1 8/20/2002
Trichlorofluoromethane	ND 4.3 µg/Kg	1 8/20/2002
Vinyl chloride	ND 4.3 µg/Kg	1 8/20/2002

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
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\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

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# Advanced Technology Laboratories

Date: 26-Aug-02

CLIENT: Ninyo & Moore  
Project: Walker Sump Abandonment, 203571006

Lab Order: 058433

Lab ID: 058433-002

Collection Date: 8/16/2002 8:40:00 AM

Client Sample ID: UB-1-20'

Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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## HYDROCARBON CHAIN IDENTIFICATION (LUFT)

EPA 8015B

RunID: GC7_020820A	QC Batch: 10456					Analyst: IG
T/R Hydrocarbons: >C32	ND	10		mg/Kg	1	8/20/2002
T/R Hydrocarbons: C10-C12	ND	10		mg/Kg	1	8/20/2002
T/R Hydrocarbons: C13-C15	ND	10		mg/Kg	1	8/20/2002
T/R Hydrocarbons: C16-C22	ND	10		mg/Kg	1	8/20/2002
T/R Hydrocarbons: C23-C32	ND	10		mg/Kg	1	8/20/2002

## HYDROCARBON CHAIN IDENTIFICATION

EPA 8015B

RunID: GC2_020819A	QC Batch: E02VS216					Analyst: JK
T/R Hydrocarbons: C5-C12	ND	1.0		mg/Kg	1	8/19/2002

## PCB BY GC/ECD

(EPA 3550B)

EPA 8082

RunID: GC10_020821A	QC Batch: 10443					Analyst: GG
Aroclor 1016	ND	33		µg/Kg	1	8/23/2002
Aroclor 1221	ND	67		µg/Kg	1	8/23/2002
Aroclor 1232	ND	33		µg/Kg	1	8/23/2002
Aroclor 1242	ND	33		µg/Kg	1	8/23/2002
Aroclor 1248	ND	33		µg/Kg	1	8/23/2002
Aroclor 1254	ND	33		µg/Kg	1	8/23/2002
Aroclor 1260	ND	33		µg/Kg	1	8/23/2002
Aroclor 1262	ND	33		µg/Kg	1	8/23/2002
Aroclor 1268	ND	33		µg/Kg	1	8/23/2002

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS1_020820A	QC Batch: P02VS171					Analyst: JPC
1,1,1,2-Tetrachloroethane	ND	3.7		µg/Kg	1	8/20/2002
1,1,1-Trichloroethane	ND	3.7		µg/Kg	1	8/20/2002
1,1,2,2-Tetrachloroethane	ND	3.7		µg/Kg	1	8/20/2002
1,1,2-Trichloroethane	ND	3.7		µg/Kg	1	8/20/2002
1,1-Dichloroethane	ND	3.7		µg/Kg	1	8/20/2002
1,1-Dichloroethene	ND	3.7		µg/Kg	1	8/20/2002
1,1-Dichloropropene	ND	3.7		µg/Kg	1	8/20/2002
1,2,3-Trichlorobenzene	ND	3.7		µg/Kg	1	8/20/2002

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

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CLIENT: Ninyo & Moore  
Project: Walker Sump Abandonment, 203571006

Lab Order: 058433

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

## EPA 8260B

RunID: MS1\_020820A

QC Batch: P02VS171

Analyst: JPC

1,2,3-Trichloropropane	ND	3.7	µg/Kg	1	8/20/2002
1,2,4-Trichlorobenzene	ND	3.7	µg/Kg	1	8/20/2002
1,2,4-Trimethylbenzene	ND	3.7	µg/Kg	1	8/20/2002
1,2-Dibromo-3-chloropropane	ND	7.4	µg/Kg	1	8/20/2002
1,2-Dibromoethane	ND	3.7	µg/Kg	1	8/20/2002
1,2-Dichlorobenzene	ND	3.7	µg/Kg	1	8/20/2002
1,2-Dichloroethane	ND	3.7	µg/Kg	1	8/20/2002
1,2-Dichloropropane	ND	3.7	µg/Kg	1	8/20/2002
1,3,5-Trimethylbenzene	ND	3.7	µg/Kg	1	8/20/2002
1,3-Dichlorobenzene	ND	3.7	µg/Kg	1	8/20/2002
1,3-Dichloropropane	ND	3.7	µg/Kg	1	8/20/2002
1,4-Dichlorobenzene	ND	3.7	µg/Kg	1	8/20/2002
2,2-Dichloropropane	ND	3.7	µg/Kg	1	8/20/2002
2-Chlorotoluene	ND	3.7	µg/Kg	1	8/20/2002
4-Chlorotoluene	ND	3.7	µg/Kg	1	8/20/2002
4-Isopropyltoluene	ND	3.7	µg/Kg	1	8/20/2002
Benzene	ND	3.7	µg/Kg	1	8/20/2002
Bromobenzene	ND	3.7	µg/Kg	1	8/20/2002
Bromodichloromethane	ND	3.7	µg/Kg	1	8/20/2002
Bromoform	ND	3.7	µg/Kg	1	8/20/2002
Bromomethane	ND	3.7	µg/Kg	1	8/20/2002
Carbon tetrachloride	ND	3.7	µg/Kg	1	8/20/2002
Chlorobenzene	ND	3.7	µg/Kg	1	8/20/2002
Chloroethane	ND	3.7	µg/Kg	1	8/20/2002
Chloroform	ND	3.7	µg/Kg	1	8/20/2002
Chloromethane	ND	3.7	µg/Kg	1	8/20/2002
cis-1,2-Dichloroethene	ND	3.7	µg/Kg	1	8/20/2002
Dibromochloromethane	ND	3.7	µg/Kg	1	8/20/2002
Dibromomethane	ND	3.7	µg/Kg	1	8/20/2002
Dichlorodifluoromethane	ND	3.7	µg/Kg	1	8/20/2002
Ethylbenzene	ND	3.7	µg/Kg	1	8/20/2002
Hexachlorobutadiene	ND	3.7	µg/Kg	1	8/20/2002
Isopropylbenzene	ND	3.7	µg/Kg	1	8/20/2002
m,p-Xylene	ND	3.7	µg/Kg	1	8/20/2002
Methylene chloride	ND	3.7	µg/Kg	1	8/20/2002
MTBE	ND	3.7	µg/Kg	1	8/20/2002
n-Butylbenzene	ND	3.7	µg/Kg	1	8/20/2002
n-Propylbenzene	ND	3.7	µg/Kg	1	8/20/2002
Naphthalene	ND	3.7	µg/Kg	1	8/20/2002
o-Xylene	ND	3.7	µg/Kg	1	8/20/2002
sec-Butylbenzene	ND	3.7	µg/Kg	1	8/20/2002
Styrene	ND	3.7	µg/Kg	1	8/20/2002

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

\* - Value exceeds Maximum Contaminant Level

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# Advanced Technology Laboratories

Date: 26-Aug-02

**CLIENT:** Ninyo & Moore  
**Project:** Walker Sump Abandonment, 203571006

**Lab Order:** 058433

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS1_020820A	QC Batch: P02VS171	Analyst: JPC
tert-Butylbenzene	ND 3.7 µg/Kg	1 8/20/2002
Tetrachloroethene	75 3.7 µg/Kg	1 8/20/2002
Toluene	ND 3.7 µg/Kg	1 8/20/2002
trans-1,2-Dichloroethene	ND 3.7 µg/Kg	1 8/20/2002
Trichloroethene	6.4 3.7 µg/Kg	1 8/20/2002
Trichlorofluoromethane	ND 3.7 µg/Kg	1 8/20/2002
Vinyl chloride	ND 3.7 µg/Kg	1 8/20/2002

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

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Advanced Technology  
Laboratories

3275 Walnut Avenue, Suite 114, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

# Advanced Technology Laboratories

Date: 26-Aug-02

CLIENT: Ninyo & Moore  
Project: Walker Sump Abandonment, 203571006

Lab Order: 058433

Lab ID: 058433-003

Collection Date: 8/16/2002 8:50:00 AM

Client Sample ID: UB-1-30'

Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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## HYDROCARBON CHAIN IDENTIFICATION (LUFT)

EPA 8015B

RunID: GC7_020820A	QC Batch: 10456					Analyst: IG
T/R Hydrocarbons: >C32	ND	10		mg/Kg	1	8/20/2002
T/R Hydrocarbons: C10-C12	ND	10		mg/Kg	1	8/20/2002
T/R Hydrocarbons: C13-C15	ND	10		mg/Kg	1	8/20/2002
T/R Hydrocarbons: C16-C22	ND	10		mg/Kg	1	8/20/2002
T/R Hydrocarbons: C23-C32	ND	10		mg/Kg	1	8/20/2002

## HYDROCARBON CHAIN IDENTIFICATION

EPA 8015B

RunID: GC2_020819A	QC Batch: E02VS216					Analyst: JK
T/R Hydrocarbons: C5-C12	ND	1.0		mg/Kg	1	8/19/2002

## PCB BY GC/ECD

(EPA 3550B)

EPA 8082

RunID: GC10_020821A	QC Batch: 10443					Analyst: GG
Aroclor 1016	ND	33		µg/Kg	1	8/23/2002
Aroclor 1221	ND	67		µg/Kg	1	8/23/2002
Aroclor 1232	ND	33		µg/Kg	1	8/23/2002
Aroclor 1242	ND	33		µg/Kg	1	8/23/2002
Aroclor 1248	ND	33		µg/Kg	1	8/23/2002
Aroclor 1254	ND	33		µg/Kg	1	8/23/2002
Aroclor 1260	ND	33		µg/Kg	1	8/23/2002
Aroclor 1262	ND	33		µg/Kg	1	8/23/2002
Aroclor 1268	ND	33		µg/Kg	1	8/23/2002

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS1_020820A	QC Batch: P02VS171					Analyst: JPC
1,1,1,2-Tetrachloroethane	ND	3.3		µg/Kg	1	8/20/2002
1,1,1-Trichloroethane	ND	3.3		µg/Kg	1	8/20/2002
1,1,2,2-Tetrachloroethane	ND	3.3		µg/Kg	1	8/20/2002
1,1,2-Trichloroethane	ND	3.3		µg/Kg	1	8/20/2002
1,1-Dichloroethane	ND	3.3		µg/Kg	1	8/20/2002
1,1-Dichloroethene	ND	3.3		µg/Kg	1	8/20/2002
1,1-Dichloropropene	ND	3.3		µg/Kg	1	8/20/2002
1,2,3-Trichlorobenzene	ND	3.3		µg/Kg	1	8/20/2002

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

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Advanced Technology  
Laboratories

3275 Walnut Avenue, Suite 114, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

CLIENT: Ninyo & Moore  
Project: Walker Sump Abandonment, 203571006

Lab Order: 058433

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS1\_020820A

QC Batch: P02VS171

Analyst: JPC

1,2,3-Trichloropropane	ND	3.3	µg/Kg	1	8/20/2002
1,2,4-Trichlorobenzene	ND	3.3	µg/Kg	1	8/20/2002
1,2,4-Trimethylbenzene	ND	3.3	µg/Kg	1	8/20/2002
1,2-Dibromo-3-chloropropane	ND	6.6	µg/Kg	1	8/20/2002
1,2-Dibromoethane	ND	3.3	µg/Kg	1	8/20/2002
1,2-Dichlorobenzene	ND	3.3	µg/Kg	1	8/20/2002
1,2-Dichloroethane	ND	3.3	µg/Kg	1	8/20/2002
1,2-Dichloropropane	ND	3.3	µg/Kg	1	8/20/2002
1,3,5-Trimethylbenzene	ND	3.3	µg/Kg	1	8/20/2002
1,3-Dichlorobenzene	ND	3.3	µg/Kg	1	8/20/2002
1,3-Dichloropropane	ND	3.3	µg/Kg	1	8/20/2002
1,4-Dichlorobenzene	ND	3.3	µg/Kg	1	8/20/2002
2,2-Dichloropropane	ND	3.3	µg/Kg	1	8/20/2002
2-Chlorotoluene	ND	3.3	µg/Kg	1	8/20/2002
4-Chlorotoluene	ND	3.3	µg/Kg	1	8/20/2002
4-Isopropyltoluene	ND	3.3	µg/Kg	1	8/20/2002
Benzene	ND	3.3	µg/Kg	1	8/20/2002
Bromobenzene	ND	3.3	µg/Kg	1	8/20/2002
Bromodichloromethane	ND	3.3	µg/Kg	1	8/20/2002
Bromoform	ND	3.3	µg/Kg	1	8/20/2002
Bromomethane	ND	3.3	µg/Kg	1	8/20/2002
Carbon tetrachloride	ND	3.3	µg/Kg	1	8/20/2002
Chlorobenzene	ND	3.3	µg/Kg	1	8/20/2002
Chloroethane	ND	3.3	µg/Kg	1	8/20/2002
Chloroform	ND	3.3	µg/Kg	1	8/20/2002
Chloromethane	ND	3.3	µg/Kg	1	8/20/2002
cis-1,2-Dichloroethene	ND	3.3	µg/Kg	1	8/20/2002
Dibromochloromethane	ND	3.3	µg/Kg	1	8/20/2002
Dibromomethane	ND	3.3	µg/Kg	1	8/20/2002
Dichlorodifluoromethane	ND	3.3	µg/Kg	1	8/20/2002
Ethylbenzene	ND	3.3	µg/Kg	1	8/20/2002
Hexachlorobutadiene	ND	3.3	µg/Kg	1	8/20/2002
Isopropylbenzene	ND	3.3	µg/Kg	1	8/20/2002
m,p-Xylene	ND	3.3	µg/Kg	1	8/20/2002
Methylene chloride	ND	3.3	µg/Kg	1	8/20/2002
MTBE	ND	3.3	µg/Kg	1	8/20/2002
n-Butylbenzene	ND	3.3	µg/Kg	1	8/20/2002
n-Propylbenzene	ND	3.3	µg/Kg	1	8/20/2002
Naphthalene	ND	3.3	µg/Kg	1	8/20/2002
o-Xylene	ND	3.3	µg/Kg	1	8/20/2002
sec-Butylbenzene	ND	3.3	µg/Kg	1	8/20/2002
Styrene	ND	3.3	µg/Kg	1	8/20/2002

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

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# Advanced Technology Laboratories

Date: 26-Aug-02

CLIENT: Ninyo & Moore  
Project: Walker Sump Abandonment, 203571006

Lab Order: 058433

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID: MS1_020820A	QC Batch: P02VS171	Analyst: JPC
tert-Butylbenzene	ND 3.3 µg/Kg	1 8/20/2002
Tetrachloroethene	ND 3.3 µg/Kg	1 8/20/2002
Toluene	ND 3.3 µg/Kg	1 8/20/2002
trans-1,2-Dichloroethene	ND 3.3 µg/Kg	1 8/20/2002
Trichloroethene	ND 3.3 µg/Kg	1 8/20/2002
Trichlorofluoromethane	ND 3.3 µg/Kg	1 8/20/2002
Vinyl chloride	ND 3.3 µg/Kg	1 8/20/2002

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

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Advanced Technology  
Laboratories

3275 Walnut Avenue, Suite 100, San Jose, CA 95128-1144  
Page 9 of 12  
Tel: 562 989-4045 Fax: 562 989-4040

# Advanced Technology Laboratories

Date: 26-Aug-02

CLIENT: Ninyo & Moore  
Project: Walker Sump Abandonment, 203571006

Lab Order: 058433

Lab ID: 058433-004

Collection Date: 8/16/2002 9:00:00 AM

Client Sample ID: UB-1-40'

Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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## HYDROCARBON CHAIN IDENTIFICATION (LUFT)

EPA 8015B

RunID: GC7_020820A	QC Batch: 10456					Analyst: IG
T/R Hydrocarbons: >C32	ND	10		mg/Kg	1	8/20/2002
T/R Hydrocarbons: C10-C12	ND	10		mg/Kg	1	8/20/2002
T/R Hydrocarbons: C13-C15	ND	10		mg/Kg	1	8/20/2002
T/R Hydrocarbons: C16-C22	ND	10		mg/Kg	1	8/20/2002
T/R Hydrocarbons: C23-C32	ND	10		mg/Kg	1	8/20/2002

## HYDROCARBON CHAIN IDENTIFICATION

EPA 8015B

RunID: GC2_020819A	QC Batch: E02VS216					Analyst: JK
T/R Hydrocarbons: C5-C12	ND	1.0		mg/Kg	1	8/19/2002

## PCB BY GC/ECD

(EPA 3550B)

EPA 8082

RunID: GC10_020821A	QC Batch: 10443					Analyst: GG
Aroclor 1016	ND	33		µg/Kg	1	8/23/2002
Aroclor 1221	ND	67		µg/Kg	1	8/23/2002
Aroclor 1232	ND	33		µg/Kg	1	8/23/2002
Aroclor 1242	ND	33		µg/Kg	1	8/23/2002
Aroclor 1248	ND	33		µg/Kg	1	8/23/2002
Aroclor 1254	ND	33		µg/Kg	1	8/23/2002
Aroclor 1260	ND	33		µg/Kg	1	8/23/2002
Aroclor 1262	ND	33		µg/Kg	1	8/23/2002
Aroclor 1268	ND	33		µg/Kg	1	8/23/2002

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS1_020820A	QC Batch: P02VS171					Analyst: JPC
1,1,1,2-Tetrachloroethane	ND	4.4		µg/Kg	1	8/20/2002
1,1,1-Trichloroethane	ND	4.4		µg/Kg	1	8/20/2002
1,1,2,2-Tetrachloroethane	ND	4.4		µg/Kg	1	8/20/2002
1,1,2-Trichloroethane	ND	4.4		µg/Kg	1	8/20/2002
1,1-Dichloroethane	ND	4.4		µg/Kg	1	8/20/2002
1,1-Dichloroethene	ND	4.4		µg/Kg	1	8/20/2002
1,1-Dichloropropene	ND	4.4		µg/Kg	1	8/20/2002
1,2,3-Trichlorobenzene	ND	4.4		µg/Kg	1	8/20/2002

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

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Advanced Technology  
Laboratories

3275 Walnut Avenue, Suite 114, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

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CLIENT: Ninyo & Moore  
Project: Walker Sump Abandonment, 203571006

Lab Order: 058433

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS1\_020820A

QC Batch: P02VS171

Analyst: JPC

1,2,3-Trichloropropane	ND	4.4	µg/Kg	1	8/20/2002
1,2,4-Trichlorobenzene	ND	4.4	µg/Kg	1	8/20/2002
1,2,4-Trimethylbenzene	ND	4.4	µg/Kg	1	8/20/2002
1,2-Dibromo-3-chloropropane	ND	8.8	µg/Kg	1	8/20/2002
1,2-Dibromoethane	ND	4.4	µg/Kg	1	8/20/2002
1,2-Dichlorobenzene	ND	4.4	µg/Kg	1	8/20/2002
1,2-Dichloroethane	ND	4.4	µg/Kg	1	8/20/2002
1,2-Dichloropropane	ND	4.4	µg/Kg	1	8/20/2002
1,3,5-Trimethylbenzene	ND	4.4	µg/Kg	1	8/20/2002
1,3-Dichlorobenzene	ND	4.4	µg/Kg	1	8/20/2002
1,3-Dichloropropane	ND	4.4	µg/Kg	1	8/20/2002
1,4-Dichlorobenzene	ND	4.4	µg/Kg	1	8/20/2002
2,2-Dichloropropane	ND	4.4	µg/Kg	1	8/20/2002
2-Chlorotoluene	ND	4.4	µg/Kg	1	8/20/2002
4-Chlorotoluene	ND	4.4	µg/Kg	1	8/20/2002
4-Isopropyltoluene	ND	4.4	µg/Kg	1	8/20/2002
Benzene	ND	4.4	µg/Kg	1	8/20/2002
Bromobenzene	ND	4.4	µg/Kg	1	8/20/2002
Bromodichloromethane	ND	4.4	µg/Kg	1	8/20/2002
Bromoform	ND	4.4	µg/Kg	1	8/20/2002
Bromomethane	ND	4.4	µg/Kg	1	8/20/2002
Carbon tetrachloride	ND	4.4	µg/Kg	1	8/20/2002
Chlorobenzene	ND	4.4	µg/Kg	1	8/20/2002
Chloroethane	ND	4.4	µg/Kg	1	8/20/2002
Chloroform	ND	4.4	µg/Kg	1	8/20/2002
Chloromethane	ND	4.4	µg/Kg	1	8/20/2002
cis-1,2-Dichloroethene	ND	4.4	µg/Kg	1	8/20/2002
Dibromochloromethane	ND	4.4	µg/Kg	1	8/20/2002
Dibromomethane	ND	4.4	µg/Kg	1	8/20/2002
Dichlorodifluoromethane	ND	4.4	µg/Kg	1	8/20/2002
Ethylbenzene	ND	4.4	µg/Kg	1	8/20/2002
Hexachlorobutadiene	ND	4.4	µg/Kg	1	8/20/2002
Isopropylbenzene	ND	4.4	µg/Kg	1	8/20/2002
m,p-Xylene	ND	4.4	µg/Kg	1	8/20/2002
Methylene chloride	ND	4.4	µg/Kg	1	8/20/2002
MTBE	ND	4.4	µg/Kg	1	8/20/2002
n-Butylbenzene	ND	4.4	µg/Kg	1	8/20/2002
n-Propylbenzene	ND	4.4	µg/Kg	1	8/20/2002
Naphthalene	ND	4.4	µg/Kg	1	8/20/2002
o-Xylene	ND	4.4	µg/Kg	1	8/20/2002
sec-Butylbenzene	ND	4.4	µg/Kg	1	8/20/2002
Styrene	ND	4.4	µg/Kg	1	8/20/2002

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

\* - Value exceeds Maximum Contaminant Level

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CLIENT: Ninyo & Moore  
Project: Walker Sump Abandonment, 203571006

Lab Order: 058433

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

## EPA 8260B

RunID: MS1\_020820A

QC Batch: P02VS171

Analyst: JPC

tert-Butylbenzene	ND	4.4	µg/Kg	1	8/20/2002
Tetrachloroethene	ND	4.4	µg/Kg	1	8/20/2002
Toluene	ND	4.4	µg/Kg	1	8/20/2002
trans-1,2-Dichloroethene	ND	4.4	µg/Kg	1	8/20/2002
Trichloroethene	ND	4.4	µg/Kg	1	8/20/2002
Trichlorofluoromethane	ND	4.4	µg/Kg	1	8/20/2002
Vinyl chloride	ND	4.4	µg/Kg	1	8/20/2002

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

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# CHAIN OF CUSTODY RECORD

Pg 1 of 1



**Advanced Technology  
Laboratories**

3275 Walnut Avenue  
Signal Hill, CA 90807  
(562) 989-4045 • FAX (562) 989-4040

## FOR LABORATORY USE ONLY:

P.O.#:

Logged By: 100

Date: 7/17/02

Time:

### Method of Transport

Walk-in ☐  
Courier ☐  
UPS ☐  
FED. EXP. ☐  
ATL ☒

### Sample Condition Upon Receipt

1. CHILLED ☒ Y ☒ N ☐ 4. SEALED Y ☐ N ☒  
2. HEADSPACE (VOA) Y ☐ N ☐ 5. # OF SPLS MATCH COC Y ☐ N ☐  
3. CONTAINER INTACT Y ☒ N ☐ 6. PRESERVED Y ☒ N ☐

Client: Ninyo & Moore

Attn: PAUL ROBERTS

Address: 475 Goddard Suite 200

City Irvine

State CA

Zip Code 92618

TEL: ( 949 ) 753-7070

FAX: ( 949 ) 753-7071

Project Name: WALKER SUMP ABANDONMENT

Project #: 203571006

Sampler:

(Printed Name) RICHARD STEVENSON

(Signature) R. Stevenson

Relinquished by: (Signature and Printed Name)

RICHARD STEVENSON R. Stevenson

Date: 8/16/02

Time: 1:40

Received by: (Signature and Printed Name)

PAUL ROBERTS P. Roberts

Date: 8-16-02

Time: 2:40p

Relinquished by: (Signature and Printed Name)

PAUL ROBERTS P. Roberts

Date: 8-16-02

Time: 4:30p

Received by: (Signature and Printed Name)

PAUL ROBERTS P. Roberts

Date: 8/16/02

Time: 1630

Relinquished by: (Signature and Printed Name)

PAUL ROBERTS P. Roberts

Date:

Time:

Received by: (Signature and Printed Name)

PAUL ROBERTS P. Roberts

Date:

Time:

I hereby authorize ATL to perform the work indicated below:

Project Mgr (Submitter)

RICHARD STEVENSON 8/16/02

(Print Name)

Date

R. Stevenson

Signature

Send Report To:

Attn: SAME AS CLIENT

Co:

Address

City

State

Zip

Bill To:

Attn: SAME AS CLIENT

Co:

Address

City

State

Zip

Special Instructions/Comments:

Preservative weights were covered by labels. Rewrote weights in preservative box of labels.

Unless otherwise requested, all samples will be disposed 45 days after receipt.	Sample Archive/Disposal:
	<input type="checkbox"/> Laboratory Standard
	<input type="checkbox"/> Other
<input type="checkbox"/> Return To:	
* \$10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.	

ITEM	LAB USE ONLY:		Sample Description			
	Batch #:	Lab No.	Sample I.D.	Date	Time	
		<u>052435-01</u>	<u>UB-1-10'</u>	<u>8/16/02</u>	<u>8:30</u>	
		<u>- 002</u>	<u>UB-1-20'</u>	<u>1</u>	<u>8:40</u>	
		<u>- 003</u>	<u>UB-1-30'</u>	<u>1</u>	<u>8:50</u>	
		<u>- 004</u>	<u>UB-1-40'</u>	<u>1</u>	<u>9:00</u>	

Circle or Add Analysis(es) Requested										CIRCLE APPROPRIATE MATRIX				PRESERVATION	QA/QC		
8091/8092 (Pesticides/PCB-GC)										SOLID • SOIL • SLUDGE				CONTAINER(S)	RTNE <input type="checkbox"/>		
8230 (Volatiles-GCMS)										OIL • SOLVENT • LIQUID							
8231/8270 (BVA-GCMS)										WATER • WASTEWATER				#	Type		
Metals: Total (CAC-8010/1000)										DRINKING WATER							
8015M TPH/GUTEX (COMBINATION)										AIR				TAT	REMARKS		
8015M TPH/GUTEX (Diesel-GC)										WIPE • FILTER							
PCB/PAHs - 8082										OTHER				OTHER			
G-C-82 - 8015																	
X										X				E	✓	Vt-Gm	Sampled
X										X				E	✓	Vt-Gm	using
X										X				E	✓	Vt-Gm	method
X										X				E	✓	Vt-Gm	SD35

• TAT starts 8 a.m. following day if samples received after 5 p.m.	TAT: A= <u>Overnight ≤ 24 hr</u>	B= <u>Emergency Next workday</u>	C= <u>Critical 2 Workdays</u>	D= <u>Urgent 3 Workdays</u>	E= <u>Routine 7 Workdays</u>	Preservatives: H=HCl N=HNO <sub>3</sub> S=H <sub>2</sub> SO <sub>4</sub> C=4°C Z=Zn(AC) <sub>2</sub> O=NaOH T=Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub>
Container Types: T=Tube V=VOA L=Liter P=Pin J=Jar B=Tedlar G=Glass P=Plastic M=Metal						